

1972

Index by Subject to Algorithms

Algorithms published elsewhere are included, when known to us. Key. The first column, A1, B1, C2, C5, lists the key to the classification system categories; second column lists the number of the algorithm; third column lists the title of the algorithm; fourth column lists month, year, pages (in parentheses) in

ACM or reference elsewhere. This yearly index is published in the December issue of Communications and is a supplement to the "Index by Subject to Algorithms, 1960-1968," *Comm. ACM* 11 (Dec. 1968), 827-830.

| | | |
|-----|--|----------------------------|
| A1 | REAL ARITHMETIC, NUMBER THEORY | |
| A1 | 71 INTERVAL ARITHMETIC | CJ, 11-71(447) |
| A1 | EXTENSION OF ARITH. PRECISION | NR, 10-71(224) |
| C2 | ZEROS OF POLYNOMIALS | |
| C2 | 419 ZEROS OF A COMPLEX POLYNOMIAL | 8-72(97) |
| C2 | 469 ROOTS OF A POLYNOMIAL | 8-72(176) |
| C5 | KEYS OF ONE OR MORE TRANSCENDENTAL EQUATIONS | |
| C5 | ALS WITH GUARANTEED CONVERGENCE | CJ, 11-71(452) |
| C5 | SYSTEMS OF NONLINEAR EQUATIONS | CP, 9-72(43) |
| C6 | SIMULATION OF SERIES, CONVERGENCE ACCELERATION | |
| C6 | 393 SUMMATION WITH ARD. PRECISION | 9-72(370), 6-72(468) |
| C6 | LOW ROUND-OFF SUMMATION METHOD | BI, 11-71(871) |
| C6 | GENED. EULEY TRANSFORMATION | CJ, 11-71(437) |
| D1 | QUADRATURE | |
| D1 | 379 ADAPTIVE SIMPSON QUADRATURE | 4-72(840), 12-72(1073) |
| D1 | 418 FOURIER INTEGRAL | 1-72(47), 6-72(469) |
| D1 | 424 CLENSHAW-CURTIS QUADRATURE | 5-72(353) |
| D1 | 467 FOURIER COSINE INTEGRAL | 5-72(358) |
| D1 | 434 PRODUCT TYPE TRAPEZOIDAL RULE | 12-72(1070) |
| D1 | 437 PRODUCT TYPE SIMPSON RULE | 12-72(1070) |
| D1 | 438 GAUSS-LEGENDRE-SIMPSON RULE | 12-72(1071) |
| D1 | 439 GAUSS-LEGENDRE-SIMPSON RULE | 12-72(1072) |
| D1 | CLENSHAW-CURTIS QUADRATURE | CJ, 5-72(141) |
| D1 | FOUR-DIM. ROMBERG INTEGRATION | CP, 9-72(43) |
| D1 | GAUSSIAN QUADRATURE | NR, 10-72(463) |
| DE | ORDINARY DIFFERENTIAL EQUATIONS | |
| DE | SOLN. BY TAYLOR SERIES METHOD | CJ, 8-71(243) |
| D3 | PARTIAL DIFFERENTIAL EQUATIONS | |
| D3 | 398 SYSTEMS OF HYPERBOLIC PDE | 9-72(367), 12-72(1074) |
| E1 | INTERPOLATION | |
| E1 | 51 LOG-LINEAR FIT | AS, 21-72(218) |
| E1 | 58 POWER SUMS OF DEVIATIONS | AS, 21-72(226) |
| E1 | CUBIC INTERPOLATION | CJ, 2-72(807) |
| E1 | 10 TWO-DIM. SMOOTH INTERPOLATION | CP, 4-69(189), 6-71(200) |
| E1 | 16 TWO-DIM. EXPONENTIAL SPLINES | CP, 7-71(365) |
| E1 | 10 BEST POLYNOMIAL FOR HEMZ ALG. | ZM, 12-71(107) |
| E2 | CURVE AND SURFACE FITTING | |
| E2 | 174 SURFACE FIT | 9-63(313), 12-72(1073) |
| E2 | 433 SMOOTH CURVE FITTING | 10-72(914) |
| E2 | 50 TESTS OF FIT | AS, 21-72(103) |
| E2 | 67 AXIS INVARIANT PROCEDURE | CJ, 3-71(209), 11-71(451) |
| E2 | RATIONAL FUNCTION APPROXIMATION | NR, 10-71(127) |
| E4 | MINIMIZING OR MAXIMIZING A FUNCTION | |
| E4 | 47 SIMPLEX METHOD FOR FUNCTION MIN | AS, 20-71(338) |
| E4 | 12 MIN OF FUNCTION OF ONE VARIABLE | ZM, 12-71(221) |
| F1 | MATRIX OPERATIONS, INCLUDING INVERSION | |
| F1 | 380 TRANSPOSE OF RECTANGULAR MATRIX | 5-72(383), 5-72(387) |
| F1 | 380 | 1-72(49) |
| F1 | 70 VAR. BANDWIDTH PDS. DEF. EQU. | CJ, 11-71(448) |
| F1 | 13 INVERSION OF TRIANGULAR MATRIX | CP, 7-71(357) |
| F1 | METHOD OF COMPLETING | CP, 8-71(221) |
| F1 | SYMMETRIC MATRIX IN MAX-MIN | JG, 10-71(566) |
| F2 | EIGENVALUES AND EIGENVECTORS OF MATRICES | |
| F2 | 343 REAL GENERAL MATRIX | 12-68(257), 7-70(182) |
| F2 | 343 | 11-70(694), 6-72(466) |
| F2 | 405 ROOTS OF MATRIX PENCILS | 8-71(113), 12-72(1075) |
| F2 | SYMMETRIC TRIANGULAR MATRIX | BI, 11-71(262) |
| F4 | SIMULTANEOUS LINEAR EQUATIONS | |
| F4 | 195 BAND SOLVE | 9-72(441), 12-72(1074) |
| F4 | 403 LINEAR EQUATION SOLVER | 4-72(274) |
| F4 | 432 SOLUTION TO EQUATION AX+BX=C | 9-72(800) |
| F4 | 69 SYMMETRIC THREE TERM SYSTEMS | CJ, 11-71(444) |
| F4 | VANDEMOENDE SYSTEMS | NR, 10-71(44) |
| F5 | ORTHOGONALIZATION | |
| F5 | 10 USE OF ORTHOGONAL POLYNOMIALS | AS, 17-68(83), 20-71(118) |
| F5 | 10 | 20-71(214) |
| F5 | 40 ORTHOGONAL POLYNOMIALS | AS, 20-71(809) |
| F5 | 46 GEM-SCHMIDT ORTHOGONALIZATION | AS, 20-71(335) |
| G1 | SIMPLE CALCULATIONS ON STATISTICAL DATA | |
| G1 | 434 INC CONTINGENCY TABLES | 11-72(991) |
| G1 | 35 FINITE POPULATION PROBABILITY | AS, 20-71(99), 20-71(346) |
| G1 | 41 MATRIX MEAN AND DISPERSION | AS, 20-71(206) |
| G1 | 48 UNCERTAINTY FUN. FOR BINARY SEG | AS, 21-72(97) |
| G1 | FITTING THEORETICAL EXPRESSION | CP, 7-72(294) |
| G1 | 15 PROBABILITY FUN F-SHEDOCK FUN. | ZM, 12-72(499) |
| GR | CORRELATION AND REGRESSION ANALYSIS | |
| GR | 49 AUTOCORRELATION FUN FOR BIN SEG | AS, 21-72(100) |
| GR | PRED. DIST. OF RANK CORRELATION | CP, 6-71(11) |
| G5 | RANDOM-NUMBER GENERATORS | |
| G5 | 264 PSEUDO-RANDOM NUMBERS | 10-65(405), 9-64(487) |
| G5 | 264 | 12-72(1072) |
| G5 | 370 RANDOM NUMBER GENERATOR | 1-70(49), 6-72(467) |
| G5 | 381 RANDOM VECTOR IN SOLID ANGLE | 5-72(386), 6-72(468) |
| G5 | 405 RANDOM CORRELATED NORMAL VAR. | 5-72(355) |
| G5 | PSEUDO-RANDOM NUMBER GENERATION | CP, 9-72(43) |
| H | OPERATIONS RESEARCH, GRAPH STRUCTURES | |
| H | 394 DECISION TABLE TRANSLATION | 9-72(313), 12-72(1074) |
| H | 397 INTEGER PROGRAMMING PROBLEM | 10-70(420), 6-72(469) |
| H | 402 MINIMAL SPANNING TREE | 4-72(273) |
| H | 400 PREOPTIMIZERS IN DIRECTED GRAPH | 8-72(777) |
| H | 431 QUAD. AND LINEAR PROGRAMMING | 9-72(818) |
| H | 40 MINIMAL SPANNING TREE | AS, 20-71(204) |
| H | 10 LINDSIMPX | BI, 4-64(194), 6-64(82) |
| H | 10 | 12-72(267) |
| H | PARTITION OF UNDIRECTED GRAPH | BI, 12-72(141) |
| H | OPTIMIZATION PROBLEMS | CC, 4-72(159) |
| H | SPEAKER SIMPLEX | CP, 6-71(157) |
| H | SHORTEST PATH IN GRAPH | CP, 6-71(171) |
| H | PLAN IN ANTISYMMETRICAL NETWORK | ZM, 11-69(113), 11-70(513) |
| H | 3 ZERO-ONE INTEGER LINEAR PROG. | ZM, 11-70(513), 12-71(131) |
| H | 5 TRANSPORTATION PROBLEM | ZM, 11-70(513), 12-71(131) |
| H | 14 ZERO-ONE INTEGER LINEAR PROG. | ZM, 12-71(347) |
| IS | INPUT - COMPOSITE | |
| IS | 43 VARIABLE FORMAT IN FORTRAN | AS, 20-71(213), 20-71(346) |
| J4 | PLOTTING | |
| J4 | 400 HIDDEN-LINE PLOTTING PROGRAM | 8-72(100) |
| J4 | 44 SCATTER DIAGRAM PLOTTING | AS, 20-71(327) |
| J4 | 45 HISTOGRAM PLOTTING | AS, 20-71(332) |
| J4 | PRINTER-PLATTER ROUTINE | CC, 12-71(470) |
| K2 | RELOCATION | |
| K2 | 11 TRANSFORMATION OF AN OWN ARRAY | ZM, 12-71(123) |
| M1 | SORTING | |
| M1 | 404 MERGE SORT ALGORITHM | 5-72(357) |
| OR | SIMULATION OF COMPUTING STRUCTURE | |
| OR | SIMULATION OF TURING MACHINE | CP, 8-71(241) |
| S | APPROXIMATION OF SPECIAL FUNCTIONS-- | |
| S | FUNCTIONS ARE CLASSIFIED SOI TO SEE FOLLOWING | |
| S | FLETCHER-HILLEN-ROSENHEAD, INDEX OF MATN. TABLES | |
| S13 | EXPONENTIAL INTEGRAL E1(x) | 7-70(446), 7-70(448) |
| S13 | | 18-70(50), 12-72(1074) |
| S14 | 401 COMPLEX GAMMA FUNCTION | 4-72(271) |
| S14 | 435 MOD. INCOMPLETE GAMMA FUNCTION | 11-72(993) |
| S15 | 343 COMPLEX EIGEN FUNCTION | 11-69(433), 6-72(465) |
| S22 | 338 CHAR-VALS, SLNS OF MATHEUS DE. | 7-69(399), 12-70(750) |
| S22 | 358 | 12-72(1074) |
| S22 | 13 CHERYSHEV POLYNOMIALS | ZM, 12-71(227) |
| Y1 | PHYSICS APPLICATIONS | |
| Y1 | COULOMB FUN. FOR COMPLEX ENERGY | CC, 7-69(25), 4-72(276) |
| Y1 | BORN APP. FOR NUCLEAR REACTIONS | CC, 2-71(94), 4-72(275) |
| Y1 | SELF-CONSISTENT FIELD | 4-72(107), 12-71(471) |
| Y1 | EXTENDED DEFECTS IN METALS | CC, 10-71(301) |
| Y1 | MESBAUM SPECTRA | CC, 10-71(322) |
| Y1 | PURE AND MIXED NISSON STATES | CC, 10-71(331) |
| Y1 | LEED INTENSITIES | CC, 10-71(341) |
| Y1 | TWO-NUCLEON SCATTERING EQU. | CC, 10-71(353) |
| Y1 | SCATTERING OF ELECTRONS | CC, 10-71(360) |
| Y1 | SPECTROSCOPIC DOUBLE STAR | CC, 10-71(368) |
| Y1 | ANG. MOMENTUM COUPLING COEFF. | CC, 10-71(381) |
| Y1 | BUBBLE CHAMBER PHOTOGRAPH | CC, 12-71(394) |
| Y1 | SIX FRACTIONAL PARTENTAGE | CC, 12-71(400) |
| Y1 | CHRG. COEFF. FOR ATOMIC SHELL | CC, 12-71(407) |
| Y1 | ENERGY-LESS STRAGGLING | CC, 12-71(433) |
| Y1 | NUCLEAR REACTIONS | CC, 12-71(443) |
| Y1 | GAMMA RADIATION DOSIMETRY | CC, 12-71(449) |
| Y1 | QUADRUPOLE RADIAL MATRIX | CC, 12-71(455) |
| Y1 | EXTRACTION OF BULK VISCOSITIES | CC, 1-72(1) |
| Y1 | ATOMIC ENERGY LEVEL VALUES | CC, 1-72(11) |
| Y1 | WAVE NUMBER CALCULATIONS | CC, 1-72(19) |
| Y1 | MATHEUS-FOCK NUCL. CALCULATIONS | CC, 1-72(22) |
| Y1 | MAGNETIC SHELL PARAMETER | CC, 1-72(21) |
| Y1 | GEOMETRIC SHELL PARAMETER | CC, 1-72(26) |
| Y1 | TRAJECTORY CALCULATIONS | CC, 1-72(42) |
| Y1 | GENED. TRANSFORMATION BRACKETS | CC, 1-72(53) |
| Y1 | GENERALIZED TALK COEFFICIENTS | CC, 1-72(61) |
| Y1 | THIRD VIRAL COEFFICIENTS | CC, 1-72(69) |
| Y1 | COULOMB FUNCTIONS | CC, 3-72(73) |
| Y1 | LATTICE VIBRATIONS | CC, 3-72(88) |
| Y1 | QUADRUPOLE COULOMB EXCITATIONS | CC, 3-72(118) |
| Y1 | FIELD GRADIENT INTEGRALS | CC, 3-72(130) |
| Y1 | BUBBLE CHAMBER EVENTS | CC, 3-72(136) |
| Y1 | CROSS SECTION CALCULATIONS | CC, 4-72(173) |
| Y1 | CLASSICAL RELATIVE MOTION (1) | CC, 4-72(197) |
| Y1 | CLASSICAL RELATIVE MOTION (11) | CC, 4-72(201) |
| Y1 | POSITRON LIFETIME SPECTRA | CC, 4-72(240) |
| Y1 | FINE STRUCTURE CROSS SECTION | CC, 4-72(256) |
| Y1 | TRANSPORT COLLISION INTEGRALS | CC, 4-72(249) |
| Y1 | THE REDUCED ROTATION MATRIX | CC, 7-72(318) |
| Y1 | GROWTH OF GASEOUS DISCHARGE | CC, 7-72(322) |
| Y1 | RADIAL SCHRODINGER EQUATION | CC, 7-72(334) |
| Y1 | MESBAUM SCATTERING SPECTRA | CC, 7-72(339) |
| Z | ALL STATES | |
| Z | 391 UNITARY SYMMETRIC POLYNOMIALS | 8-70(512), 1-72(49) |
| Z | 398 TABLE-DATE CONVERSION | 10-70(681), 10-72(918) |
| Z | 405 MU-TUCKER CODING METHOD | 5-72(360) |
| Z | DOMINANT WEIGHT IN LIE ALGEBRA | BI, 11-71(310) |
| Z | GENERATION OF WEYL GROUP | CC, 3-72(155) |
| Z | GENERATION OF FINITE GROUPS | CP, 7-71(333) |

1972

Index by Subject to Algorithms

Algorithms published elsewhere are included, when known to us. Key. The first column, A1, B1, C2, C5, lists the key to the classification system categories; second column lists the number of the algorithm; third column lists the title of the algorithm; fourth column lists month, year, pages (in parentheses) in

ACM or reference elsewhere. This yearly index is published in the December issue of Communications and is a supplement to the "Index by Subject to Algorithms, 1960-1968," *Comm. ACM* 11 (Dec. 1968), 827-830.

- A1 REAL ARITHMETIC, NUMBER THEORY
A1 71 INTERVAL ARITHMETIC C.J.11-71(447)
A1 EXTENSION OF ARITH. PRECISION M.11-71(224)
- C2 ZEROS OF POLYNOMIALS
C2 419 ZEROS OF A COMPLEX POLYNOMIAL 8-72(97)
C2 469 ROOTS OF A POLYNOMIAL 8-72(176)
- C5 ZERES OF ONE OR MORE TRANSCENDENTAL EQUATIONS
C5 419 ZERES OF ONE OR MORE TRANSCENDENTAL EQUATIONS C.J.11-71(447)
C5 469 ROOTS OF A POLYNOMIAL M.11-71(224)
- C6 SIMULATION OF SERIES, CONVERGENCE ACCORDANCE
C6 393 SIMULATION WITH AND PRECISION 9-70(370), 6-72(468)
C6 LOW ROUND-OFF SIMULATION METHOD B.11-71(871)
C6 GENED, EULEX TRANSFORMATION C.J.11-71(437)
- D1 QUADRATURE
D1 379 ADAPTIVE SIMPSON QUADRATURE 4-70(260), 12-72(1073)
D1 418 FOURIER INTEGRAL 1-72(47), 6-72(469)
D1 424 CLENSHAW-CURTIS QUADRATURE 5-72(353)
D1 467 FOURIER COSINE INTEGRAL 5-72(358)
D1 434 PRODUCT TYPE TRAPEZOIDAL RULE 12-72(1070)
D1 437 PRODUCT TYPE SIMPSON RULE 12-72(1070)
D1 438 GAUSS-LEGENDRE-SIMPSON RULE 12-72(1071)
D1 439 GAUSS-LEGENDRE-SIMPSON RULE 12-72(1072)
D1 CLENSHAW-CURTIS QUADRATURE C.J.5-72(141)
D1 FOUR-DIM. ROMBERG INTEGRATION C.P.9-72(45)
D1 GAUSSIAN QUADRATURE M.11-72(465)
- D2 ORDINARY DIFFERENTIAL EQUATIONS
D2 SOLN. BY TAYLOR SERIES METHOD C.J.8-71(243)
- D3 PARTIAL DIFFERENTIAL EQUATIONS
D3 398 SYSTEMS OF HYPERBOLIC PDE 9-70(367), 12-72(1074)
- E1 INTERPOLATION
E1 51 LOG-LINEAR FIT A.S.21-72(218)
E1 58 POWER SUMS OF DEVIATIONS A.S.21-72(226)
E1 CUBIC INTERPOLATION C.J.2-72(801)
E1 10 TWO-DIM. SMOOTH INTERPOLATION C.P.4-69(189), 6-71(200)
E1 16 TWO-DIM. EXPONENTIAL SPLINES C.P.7-71(365)
E1 10 BEST POLYNOMIAL FOR HEMZ ALG. Z.M.12-71(107)
- E2 CURVE AND SURFACE FITTING
E2 176 SURFACE FIT 9-63(313), 12-72(1073)
E2 433 SMOOTH CURVE FITTING 10-72(914)
E2 50 TESTS OF FIT A.S.21-72(103)
E2 67 AXIS INVARIANT PROCEDURE C.J.5-71(209), 11-71(451)
E2 RATIONAL FUNCTION APPROXIMATION M.11-71(127)
- E4 MINIMIZING OR MAXIMIZING A FUNCTION
E4 47 SIMPLEX METHOD FOR FUNCTION MIN A.S.20-71(338)
E4 12 MIN OF FUNCTION OF ONE VARIABLE Z.M.12-71(221)
- F1 MATRIX OPERATIONS, INCLUDING INVERSION
F1 380 TRANSPOSE OF RECTANGULAR MATRIX 5-70(323), 5-70(327)
F1 380 1-72(49)
F1 70 VAR. BANDWIDTH PDS. DEF. EQU. C.J.11-71(448)
F1 13 INVERSION OF TRIANGULAR MATRIX C.P.7-71(357)
F1 METHOD OF COMPLETING C.P.8-71(221)
F1 SYMMETRIC MATRIX IN MAX-NORM J.C.10-71(566)
- F2 EIGENVALUES AND EIGENVECTORS OF MATRICES
F2 343 REAL GENERAL MATRIX 12-68(257), 7-70(182)
F2 343 11-70(694), 6-72(466)
F2 405 ROOTS OF MATRIX PENCILS 8-71(113), 12-72(1075)
F2 SYMMETRIC TRIANGULAR MATRIX B.11-71(262)
- F4 SIMULTANEOUS LINEAR EQUATIONS
F4 195 BAND SOLVE 9-70(341), 12-72(1074)
F4 403 LINEAR EQUATION SOLVER 4-72(274)
F4 432 SOLUTION TO EQUATION AX+BY=C 9-72(800)
F4 69 SYMMETRIC THREE TERM SYSTEMS C.J.11-71(444)
F4 VANDEMOENDE SYSTEMS M.11-71(44)
- F5 ORTHOGONALIZATION
F5 10 USE OF ORTHOGONAL POLYNOMIALS A.S.17-68(83), 80-71(118)
F5 10 20-71(214)
F5 40 ORTHOGONAL POLYNOMIALS A.S.80-71(809)
F5 46 GIAN-SCHMIDT ORTHOGONALIZATION A.S.80-71(335)
- G1 SIMPLE CALCULATIONS ON STATISTICAL DATA
G1 434 INC CONTINGENCY TABLES 11-72(991)
G1 35 FINITE POPULATION PROBABILITY A.S.20-71(99), 20-71(346)
G1 41 MATRIX MEAN AND DISPERSION A.S.20-71(206)
G1 48 UNCERTAINTY FUN. FOR BINARY SEG A.S.21-72(97)
G1 FITTING THEORETICAL EXPRESSION C.J.7-72(294)
G1 15 PROBABILITY FUN F-SHEDOCK FUN. Z.M.12-72(499)
- G2 CORRELATION AND REGRESSION ANALYSIS
G2 49 AUTOCORRELATION FUN FOR BIN SEG A.S.21-72(100)
G2 PREG. DIST. OF RANK CORRELATION C.P.8-71(11)
- G5 RANDOM-NUMBER GENERATORS
G5 266 PSEUDO-RANDOM NUMBERS 10-65(405), 9-64(487)
G5 266 12-72(1072)
G5 370 RANDOM NUMBER GENERATOR 1-70(49), 6-72(467)
- G5 381 RANDOM VECTOR IN SOLID ANGLE 5-70(386), 6-72(468)
G5 405 RANDOM CORRELATED NORMAL VAR. 5-72(355)
G5 PSEUDO-RANDOM NUMBER GENERATION C.P.9-72(433)
- H OPERATIONS RESEARCH, GRAPH STRUCTURES
H 394 DECISION TABLE TRANSLATION 9-70(311), 12-72(1074)
H 397 INTEGER PROGRAMMING PROBLEM 10-70(420), 6-72(469)
H 402 MINIMAL SPANNING TREE 4-72(273)
H 400 PREOPTIMIZERS IN DIRECTED GRAPH 8-72(777)
H 431 QUAD. AND LINEAR PROGRAMMING 9-72(818)
H 40 MINIMAL SPANNING TREE A.S.20-71(204)
H 10 LINDSIMPX B.11-64(194), 6-66(82)
H 10 12-72(267)
H PARTITION OF UNDIRECTED GRAPH B.11-72(141)
H OPTIMIZATION PROBLEMS C.J.4-72(159)
H SPEAKER SIMPLEX C.P.8-71(157)
H SHORTEST PATH IN GRAPH C.P.8-71(171)
H PLAN IN ANTISYMMETRICAL NETWORK Z.M.11-69(113), 11-70(513)
H 3 ZERO-ONE INTEGER LINEAR PROG. Z.M.11-70(221), 12-71(131)
H 5 TRANSPORTATION PROBLEM Z.M.11-70(221), 12-71(131)
H 14 ZERO-ONE INTEGER LINEAR PROG. Z.M.12-71(347)
- IS INPUT - COMPOSITE
IS 43 VARIABLE FORMAT IN FORTRAN A.S.80-71(213), 80-71(346)
- J6 PLOTTING
J6 400 HIDDEN-LINE PLOTTING PROGRAM 8-72(100)
J6 44 SCATTER DIAGRAM PLOTTING A.S.20-71(327)
J6 45 HISTOGRAM PLOTTING A.S.20-71(332)
J6 PRINTER-PLATTER ROUTINE C.P.12-71(470)
- K2 RELOCATION
K2 11 TRANSFORMATION OF AN OWN ARRAY Z.M.12-71(123)
- M1 SORTING
M1 406 MERGE SORT ALGORITHM 5-72(357)
- OR SIMULATION OF COMPUTING STRUCTURE
OR SIMULATION OF TURING MACHINE C.P.8-71(241)
- S APPROXIMATION OF SPECIAL FUNCTIONS--
S FUNCTIONS ARE CLASSIFIED SOI TO SEE FOLLOWING
S FLETCHER-HILLEN-ROSENHEAD, INDEX OF MATN. TABLES
S13 385 EXPONENTIAL INTEGRAL E1(x) 7-70(446), 7-70(448)
S13 385 12-70(550), 12-72(1074)
S14 401 COMPLEX GAMMA FUNCTION 4-72(271)
S14 435 MOD. INCOMPLETE GAMMA FUNCTION 11-72(993)
S15 343 COMPLEX EIGEN FUNCTION 11-69(633), 6-72(465)
S22 338 CHAR-VALS, SLNS OF MATHEUS DE. 7-69(399), 12-70(750)
S22 358 12-72(1074)
S22 13 CHERYSHEV POLYNOMIALS Z.M.12-71(227)
- Y1 PHYSICS APPLICATIONS
Y1 COULOMB FUN. FOR COMPLEX ENERGY C.C.7-69(25), 4-72(276)
Y1 BORN APP. FOR NUCLEAR REACTIONS C.C.2-71(94), 4-72(275)
Y1 SELF-CONSISTENT FIELD C.C.2-71(107), 12-71(471)
Y1 EXTENDED DEFECTS IN METALS C.C.10-71(301)
Y1 NEISSBAUER SPECTRA C.C.10-71(322)
Y1 PURE AND MIXED NISSON STATES C.C.10-71(331)
Y1 LEED INTENSITIES C.C.10-71(341)
Y1 TWO-NUCLEON SCATTERING EQU. C.C.10-71(353)
Y1 SCATTERING OF ELECTRONS C.C.10-71(360)
Y1 SPECTROSCOPIC DOUBLE STAR C.C.10-71(368)
Y1 ANG. MOMENTUM COUPLING COEFF. C.C.10-71(381)
Y1 BUBBLE CHAMBER PHOTOGRAPH C.C.12-71(394)
Y1 SUB FRACTIONAL FRACTIONAGE C.C.12-71(400)
Y1 CNM. COEFF. FOR ATOMIC SHELL C.C.12-71(407)
Y1 ENERGY-LESS STRAGGLING C.C.12-71(433)
Y1 NUCLEAR REACTIONS C.C.12-71(443)
Y1 GAMMA RADIATION DOSIMETRY C.C.12-71(449)
Y1 QUADRUPOLE RADIAL MATRIX C.C.12-71(455)
Y1 EXTRACTION OF BULK VISCOSITIES C.C.1-72(1)
Y1 ATOMIC ENERGY LEVEL VALUES C.C.1-72(11)
Y1 WAVE NUMBER CALCULATIONS C.C.1-72(19)
Y1 NINE-THREE-FOUR NUCL. CALCULATIONS C.C.1-72(22)
Y1 MAGNETIC SHELL PARAMETER C.C.1-72(21)
Y1 GEOMETRIC SHELL PARAMETER C.C.1-72(26)
Y1 TRAJECTORY CALCULATIONS C.C.1-72(42)
Y1 GENED, TRANSFORMATION BRACKETS C.C.1-72(53)
Y1 GENERALIZED TALK COEFFICIENTS C.C.1-72(61)
Y1 THIRD VIRAL COEFFICIENTS C.C.1-72(69)
Y1 COULOMB FUNCTIONS C.C.3-72(73)
Y1 LATTICE VIBRATIONS C.C.3-72(88)
Y1 QUADRUPOLE COULOMB EXCITATIONS C.C.3-72(118)
Y1 FIELD GRADIENT INTEGRALS C.C.3-72(130)
Y1 BUBBLE CHAMBER EVENTS C.C.3-72(136)
Y1 CROSS SECTION CALCULATIONS C.C.4-72(173)
Y1 CLASSICAL RELATIVE MOTION (1) C.C.4-72(197)
Y1 CLASSICAL RELATIVE MOTION (11) C.C.4-72(201)
Y1 POSITRON LIFETIME SPECTRA C.C.4-72(240)
Y1 FINE STRUCTURE CROSS SECTION C.C.4-72(256)
Y1 TRANSPORT COLLISION INTEGRALS C.C.4-72(269)
Y1 THE REDUCED ROTATION MATRIX C.C.7-72(318)
Y1 GROWTH OF GASEOUS DISCHARGE C.C.7-72(322)
Y1 RADIAL SCHRÖDINGER EQUATION C.C.7-72(334)
Y1 NEISSBAUER SCATTERING SPECTRA C.C.7-72(339)
- Z ALL STATES
Z 391 UNITARY SYMMETRIC POLYNOMIALS 8-70(512), 1-72(49)
Z 398 TABLE-DATE CONVERSION 10-70(421), 10-72(918)
Z 408 MU-TUCKER CODING METHOD 5-72(360)
Z DOMINANT WEIGHT IN LIE ALGEBRA 3-71(113)
Z GENERATION OF WEYL GROUP C.C.3-72(155)
Z GENERATION OF FINITE GROUPS C.P.7-71(333)

Index to Communications of the ACM Volume 15, 1972

BIBLIOGRAPHY AUTHOR INDEX DEPARTMENT INDEX

Entries in this Index are for the technical papers, reports, articles, and short communications that appeared under the heading "contributions" on the contents pages of the 12 issues of the year. Algorithms are indexed separately; the "Index by Subject to Algorithms 1972" is on page 1076 of this issue.

The KEY in each entry gives the year and volume number (7215), the issue number (which is also the number of the month), and the beginning page number.

The BIBLIOGRAPHY lists the entries in order of original appearance; each entry gives the title and the name(s) of the author(s).

The AUTHOR INDEX lists the entries in order of alphabetized authors' names. If there is more than one author for a paper, each author is listed separately in alphabetical order; therefore, in this section a single entry would not include co-author's names.

The DEPARTMENT INDEX entries are grouped according to Communications technical departments in which they appeared. Under each department heading, entries are given in order of original appearance.

BIBLIOGRAPHY

- 7215 1 3 PICTORIAL PATTERN RECOGNITION AND THE PHASE PROBLEM OF X-RAY CRYSTALLOGRAPHY * LESK, A.M.
7215 1 7 ON SHRINKING BINARY PICTURE PATTERNS * LEVIALDI, S.
7215 1 11 USE OF THE HOUGH TRANSFORMATION TO DETECT LINES AND CURVES IN PICTURES * DUDA, R.O. / HART, P.E.
7215 1 16 A CRT EDITING SYSTEM * IRONS, E.T. / DJORP, F.M.
7215 1 21 TEACHER/STUDENT AUTHORED CAI USING THE NEWBASIC SYSTEM * DWYER, T.A.
7215 1 28 CORRIGENDUM: OPTIMIZING THE POLYPHASE SORT * SHELL, D.L.
7215 1 29 MUSE: A MODEL TO UNDERSTAND SIMPLE ENGLISH * MCCALLA, G.I. / SAMPSON, J.R.
7215 1 41 QUADRATIC PROGRAMMING FOR NONLINEAR REGRESSION * SHRAGER, R.I.
7215 1 45 ORDERING $\pm f(\pm f(\dots \pm f(x) \dots))$ WHEN $f(x)$ IS POSITIVE MONOTONIC (SHORT COMMUNICATION) * SALZER, H.E.
7215 2 71 A PROPOSAL FOR A COMPUTER-BASED INTERACTIVE SCIENTIFIC COMMUNITY * PAGER, D.
7215 2 76 PRELIMINARY REPORT ON A SYSTEM FOR GENERAL SPACE PLANNING * EASTMAN, C.M.
7215 2 88 OPTIMIZING BINARY TREES GROWN WITH A SORTING ALGORITHM * MARTIN, W.A. / NESS, D.N.
7215 2 94 MAXIMUM COMPUTING POWER AND COST FACTORS IN THE CENTRALIZATION PROBLEM * OLDEHOEFT, A.E. / HALSTEAD, M.H.
7215 2 96 CORRIGENDUM: DYNAMIC MICROPROGRAMMING: PROCESSOR ORGANIZATION AND PROGRAMMING * TUCKER, A.B. / FLYNN, M.J.
7215 2 104 MUSIC AND COMPUTER COMPOSITION * MOORER, J.A.
7215 2 113 CORRIGENDUM: RECONSTRUCTION OF PICTURES FROM THEIR PROJECTIONS * GORDON, R. / HERMAN, G.T.
7215 2 113 CORRIGENDUM: AVERAGE BINARY SEARCH LENGTH FOR DENSE ORDERED LISTS * FLORES, I. / MADPIS, G.
7215 3 135 TENEX, A PAGED TIME SHARING SYSTEM FOR THE PDP-10 * BOBROW, D.G. / BURCHFIEL, J.D. / MURPHY, D.L. / TOMLINSON, R.S.
7215 3 144 THE DESIGN OF THE VENUS OPERATING SYSTEM * LISKOV, B.H.
7215 3 150 AN OPERATING SYSTEM BASED ON THE CONCEPT OF A SUPERVISORY COMPUTER * GAINES, R.S.
7215 3 157 A HARDWARE ARCHITECTURE FOR IMPLEMENTING PROTECTION RINGS * SCHROEDER, M.D. / SALTZER, J.H.
7215 3 171 SYNCHRONIZATION OF COMMUNICATING PROCESSES * HABERMANN, A.N.
7215 3 177 A COMPARATIVE ANALYSIS OF DISK SCHEDULING POLICIES * TEOREY, T.J. / PINKERTON, T.D.
7215 3 185 A STUDY OF STORAGE PARTITIONING USING A MATHEMATICAL MODEL OF LOCALITY * COFFMAN, E.G. JR. / RYAN, T.A. JR.
7215 3 191 PROPERTIES OF THE WORKING-SET MODEL * DENNING, P.J. / SCHWARTZ, S.C.
7215 4 211 ON THE IMPLEMENTATION OF SECURITY MEASURES IN INFORMATION SYSTEMS * CONWAY, R.W. / MAXWELL, W.L. / MORGAN, H.L.
7215 4 221 A SYSTEM FOR INTERPROCESS COMMUNICATION IN A RESOURCE SHARING COMPUTER NETWORK * WALDEN, D.C.
7215 4 231 AN EXPERIMENTAL LABORATORY FOR PATTERN RECOGNITION AND SIGNAL PROCESSING * HERBST, N.M. / WILL, P.M.
7215 4 245 HIDDEN LINES ELIMINATION FOR A ROTATING OBJECT * MATSUSHITA, Y.
7215 4 253 AN IMPLEMENTED GRAPH ALGORITHM FOR WINNING SHANNON SWITCHING GAMES * CHASE, S.M.
7215 4 257 COMPUTERS AND SOCIETY: A PROPOSED COURSE FOR COMPUTER SCIENTISTS * HOROWITZ, E. / MORGAN, H.L. / SHAW, A.C.
7215 4 262 COMPLEX GAMMA FUNCTION WITH ERROR CONTROL * KUKI, H.
7215 4 268 MATRIX COMPUTATIONS WITH FORTRAN AND PAGING * MOLER, C.B.
7215 4 275 A NOTE ON CHENEY'S NONRECURSIVE LIST-COMPACTING ALGORITHM (SHORT COMMUNICATION) * WALDEN, D.C.
7215 4 276 A COMMENT ON THE DOUBLE-CHAINED TREE (SHORT COMMUNICATION) * HU, T.C.
7215 5 301 AN IMPROVED INDEX SEQUENTIAL ACCESS METHOD USING HASHED OVERFLOW * MULLIN, J.K.
7215 5 308 THE MULTICS VIRTUAL MEMORY: CONCEPTS AND DESIGN * BENSOUSSAN, A. / CLINGEN, C.T. / DALEY, R.C.
7215 5 319 MUX, A SIMPLE APPROACH TO ON-LINE COMPUTING * CHRISTMAN, R.D.
7215 5 330 A TECHNIQUE FOR SOFTWARE MODULE SPECIFICATION WITH EXAMPLES * PARNAS, D.L.
7215 5 337 IMPLEMENTING CLENSHAW-CURTIS QUADRATURE, I. METHODOLOGY AND EXPERIENCE * GENTLEMAN, W.M.
7215 5 343 IMPLEMENTING CLENSHAW-CURTIS QUADRATURE, II. COMPUTING THE COSINE TRANSFORMATION * GENTLEMAN, W.M.
7215 5 347 FAST FINITE-DIFFERENCE SOLUTION OF BIHARMONIC PROBLEMS * GREENSPAN, D. / SCHULTZ, D.
7215 5 351 MINIMAX NONLINEAR APPROXIMATION BY APPROXIMATION ON SUBSETS (SHORT COMMUNICATION) * DUNHAM, C.B.
7215 5 352 THE OPTIMALITY OF WINGRAD'S FORMULA (SHORT COMMUNICATION) * HARTER, R.
7215 5 363 CURRICULUM RECOMMENDATIONS FOR GRADUATE PROFESSIONAL PROGRAMS IN INFORMATION SYSTEMS * ASHENHURST, R.L.
7215 6 411 ON THE OPTIMIZATION OF PERFORMANCE OF TIME-SHARING SYSTEMS BY SIMULATION * BLATNY, J. / CLARK, S.R. / ROURKE, T.A.
7215 6 421 A PROPOSAL TO ESTABLISH A PSEUDO VIRTUAL MEMORY VIA WRITABLE OVERLAYS * SPACEK, J.D.
7215 6 427 INTERFERENCE BETWEEN COMMUNICATING PARALLEL PROCESSES * GILBERT, P. / CHANDLER, W.J.
7215 6 438 BLOCKS-A NEW DATATYPE FOR SNOBOL4 * GIMPEL, J.F.
7215 6 448 A BOOLEAN MATRIX METHOD FOR THE COMPUTATION OF LINEAR PRECEDENCE FUNCTIONS * MARTIN, D.F.
7215 6 455 COMPUTER-ASSIGNED CODES FROM VERBAL RESPONSES * O'REAGAN, R.T.
7215 6 460 A STARTING METHOD FOR SOLVING NONLINEAR VOLTERRA INTEGRAL EQUATIONS OF THE SECOND KIND * IGUCHI, K.
7215 6 462 A SORTING PROBLEM AND ITS COMPLEXITY * POHL, I.

- 7215 6 470 COMPUTER SCIENCE-A VICIOUS CIRCLE (SHORT COMMUNICATION) * KANDEL, A.
7215 6 472 INDIVIDUALIZING INSTRUCTION IN A GENERATIVE CAI TUTOR (SHORT COMMUNICATION) * KOFFMAN, E.B.
7215 7 485 THE FIRST TWENTY-FIVE YEARS * REVENS, L.
7215 7 491 PUBLICATIONS IN COMPUTING: AN INFORMAL REVIEW * WEISS, E.A.
7215 7 501 AESTHETICS AND THE HUMAN FACTOR IN PROGRAMMING * ERSHOV, A.P.
7215 7 521 TOWARD AN AUTOMATA THEORY OF BRAINS * ARBIB, M.A.
7215 7 528 FIXPOINT APPROACH TO THE THEORY OF COMPUTATION * MANNA, Z. / VUILLEMIN, J.
7215 7 537 NUMERICAL MATHEMATICS AND COMPUTER SCIENCE * TRAUB, J.
7215 7 542 MANAGEMENT SCIENCE: A VIEW FROM NONLINEAR PROGRAMMING * SHANNO, D.F. / WEIL, R.L.
7215 7 550 TOWARD A GENERAL THEORY OF SPECIAL FUNCTIONS * MOSES, J.
7215 7 557 A VIEW OF COMPUTER ARCHITECTURE * FOSTER, C.
7215 7 566 ON THE INTERFACE BETWEEN COMPUTERS AND DATA COMMUNICATIONS SYSTEMS * FRASER, A.G.
7215 7 574 STRUCTURED MULTIPROGRAMMING * BRINCH HANSEN, P.
7215 7 579 OPERATING SYSTEM PERFORMANCE * LYNCH, W.C.
7215 7 586 THE ROLE OF COMPUTER SYSTEM MODELS IN PERFORMANCE EVALUATION * KIMBLETON, S.R.
7215 7 591 PROGRAMMING SYSTEMS AND LANGUAGES * ROSEN, S.
7215 7 601 PROGRAMMING LANGUAGES: HISTORY AND FUTURE * SAMMET, J.
7215 7 611 THE PRODUCTION OF BETTER MATHEMATICAL SOFTWARE * FOSDICK, L.D.
7215 7 618 REQUIREMENTS FOR ADVANCED PROGRAMMING SYSTEMS FOR LIST PROCESSING * BOBROW, D.G.
7215 7 628 THE EVOLUTION OF STORAGE STRUCTURES * BACHMAN, C.W.
7215 7 637 ON THE PRESENT AND FUTURE OF SCIENTIFIC COMPUTATION * RICE, J.
7215 7 640 A GENERATIONAL PERSPECTIVE OF INFORMATION SYSTEM DEVELOPMENT * BENJAMIN, R.I.
7215 7 644 LANGUAGE ANALYSIS IN THE HUMANITIES * SEDELOW, S.Y.
7215 7 648 COMPUTERS IN THE INSTRUCTIONAL PROCESS: DIRECTIONS FOR RESEARCH AND DEVELOPMENT * ZINN, K.
7215 7 652 COMPUTERS AND URBAN SOCIETY * STURMAN, G.M.
7215 7 658 DYNAMIC DOCUMENT PROCESSING * SALTON, G.
7215 7 671 ANCIENT BABYLONIAN ALGORITHMS * KNUTH, D.E.
7215 7 678 THE "PLANKALKÜL" OF KONRAD ZUSE: A FORERUNNER OF TODAY'S PROGRAMMING LANGUAGES * BAUER, F.L. / WÜSSNER, H.
7215 7 686 A WESTERN VIEW OF COMPUTER HISTORY * SPRAGUE, R.E.
7215 7 693 ARCHAEOLOGY OF COMPUTERS * ALT, F.L.
7215 7 695 COMPUTERS AND EMPLOYMENT * BORODIN, A. / GOTTLIEB, C.C.
7215 8 728 GENERATING PARSERS FOR AFFIX GRAMMARS * CROWE, D.
7215 8 735 POLITICAL REDISTRIBUTING BY COMPUTER * HELBIG, R.E. / ORR, P. K. / ROEDIGER, R.R.
7215 8 742 AN EXTENSIBLE EDITOR FOR A SMALL MACHINE WITH DISK STORAGE * BENJAMIN, A.J.
7215 8 748 AN ENVIRONMENT FOR RESEARCH IN MICROPROGRAMMING AND EMULATION * ROSIN, R.F. / FRIEDER, G. / ECKHOUSE, R.H. JR.
7215 8 761 A MODEL OF MEMORY CONTENTION IN A PAGING MACHINE * ODEN, P.H. / SHEDLER, G.S.
7215 8 772 COMPILING FIXED-POINT MULTIPLICATIONS (SHORT COMMUNICATION) * BERNSTEIN, H.J.
7215 8 772 COMMENT ON THE COMPOSITION OF SEMANTICS IN ALGOL 68 (SHORT COMMUNICATION) * VAN DER POEL, W.L.
7215 8 773 A BONUS FROM VAN WIJNGAARDEN'S DEVICE (SHORT COMMUNICATION) * MORRIS, J.H. JR.
7215 8 774 COMMENT ON AVERAGE BINARY SEARCH LENGTH (SHORT COMMUNICATION) * JONES, P.R.
7215 8 775 A NOTE ON THE GENERATION OF ROSARY PERMUTATIONS (SHORT COMMUNICATION) * READ, R.C.
7215 9 789 CELLULAR ARRAYS FOR THE SOLUTION OF GRAPH PROBLEMS * LEVITT, K.N. / KAUTZ, W.H.
7215 9 802 FILE ORGANIZATION: THE CONSECUTIVE RETRIEVAL PROPERTY * GHOSH, S.P.
7215 9 809 A NEW APPROACH TO AUTOMATIC SCANNING OF CONTOUR MAPS * MOR, M. / LAMDAI, T.
7215 9 813 AUTOMATIC ERROR ANALYSIS FOR DETERMINING PRECISION * RICHMAN, P.L.
7215 9 827 THINNING ALGORITHMS ON RECTANGULAR, HEXAGONAL, AND TRIANGULAR ARRAYS * DEUTSCH, E.S.
7215 9 838 A COMPARISON OF FLOATING POINT SUMMATION METHODS (SHORT COMMUNICATION) * GREGORY, J.
7215 9 839 THE EIGENPROBLEM OF BLOCK TRIAGONAL MATRICES (SHORT COMMUNICATION) * KHALIL, H.M.
7215 9 840 COMMENT ON DEADLOCK PREVENTION METHOD (SHORT COMMUNICATION) * PARNAS, D.L. / HABERMANN, A.N.
7215 9 841 A CONTROLLER FOR A BRAILLE TERMINAL (SHORT COMMUNICATION) * RUBINSTEIN, R. / FELDMAN, J.
7215 9 843 ON FOSTER'S INFORMATION STORAGE AND RETRIEVAL USING AVL TREES (SHORT COMMUNICATION) * TAN, K.C.
7215 10 859 1972 ACM TURING AWARD LECTURE: THE HUMBLE PROGRAMMER * DIJKSTRA, E.W.
7215 10 867 DEMAND PAGING THROUGH UTILIZATION OF WORKING SETS ON THE MANIAC II * MORRIS, J.B.
7215 10 873 COMPUTER METHODS FOR SAMPLING FROM THE EXPONENTIAL AND NORMAL DISTRIBUTIONS * AHRENS, J.H. / DIETER, U.
7215 10 883 INTEGRAL EQUATIONS OF IMMUNOLOGY * HANSON, R.J.
7215 10 891 GENERATING ENGLISH DISCOURSE FROM SEMANTIC NETWORKS * SIMMONS, R. / SLOCUM, J.
7215 10 906 CONVERSION OF DECISION TABLES BY RULE MASK METHOD WITHOUT RULE MASK * DATHE, G.
7215 10 910 SORTING BY NATURAL SELECTION * FRAZER, W.D. / WONG, C.K.
7215 10 913 CORRIGENDUM: AESTHETICS AND THE HUMAN FACTOR IN PROGRAMMING * ERSHOV, A.P.
7215 11 941 A COMPARATIVE STUDY OF COMPUTER PROGRAMS FOR INTEGRATING DIFFERENTIAL EQUATIONS * FOX, P.
7215 11 949 ALGORITHMS TO REVEAL PROPERTIES OF FLOATING-POINT ARITHMETIC * MALCOLM, M.A.
7215 11 952 A HIGHLY PARALLEL ALGORITHM FOR APPROXIMATING ALL ZEROS OF A POLYNOMIAL WITH ONLY REAL ZEROS * PATRICK, M.L.
7215 11 956 A MODEL FOR TYPE CHECKING-WITH AN APPLICATION TO ALGOL 60 * LEDGARD, H.F.
7215 11 967 DERIVED SEMANTICS FOR SOME PROGRAMMING LANGUAGE CONSTRUCTS * HENDERSON, P.
7215 11 974 THE CONVERSION OF LIMITED-ENTRY DECISION TABLES TO OPTIMAL AND NEAR-OPTIMAL FLOWCHARTS: TWO NEW ALGORITHMS * VERHELST, M.
7215 11 981 GARBAGE COLLECTION FOR VIRTUAL MEMORY COMPUTER SYSTEMS * BAECKER, H.D.
7215 11 987 AN APPROXIMATE METHOD FOR GENERATING SYMMETRIC RANDOM VARIABLES * RAMBERG, J.S. / SCHMEISER, B.W.
7215 11 996 ADDITIONAL RESULTS ON KEY-TO-ADDRESS TRANSFORM TECHNIQUES: A FUNDAMENTAL PERFORMANCE STUDY ON LARGE EXISTING FORMATTED FILES (SHORT COMMUNICATION) * LUM, V.Y. / YUEN, P.S.T.
7215 11 997 A NOTE ON OPTIMAL DOUBLY-CHAINED TREES (SHORT COMMUNICATION) * KENNEDY, S.
7215 11 999 FURTHER COMMENTS ON DIJKSTRA'S CONCURRENT PROGRAMMING CONTROL PROBLEM (SHORT COMMUNICATION) * EISENBERG, M.A. / MCGUIRE, R.
7215 11 1000 COMMENTS ON MOORE'S: MUSIC AND COMPUTER COMPOSITION (SHORT COMMUNICATION) * SMOLIAR, S.W.
7215 12 1023 DYNAMIC PARTITIONING FOR ARRAY LANGUAGES * PHILLIPS, J.R. / ADAMS, H.C.
7215 12 1033 INDEX RANGES FOR MATRIX CALCULI * BAYER, R. / WITZGALL, C.
7215 12 1040 A METHOD FOR INCREMENTALLY COMPILING LANGUAGES WITH NESTED STATEMENT STRUCTURE * EARLEY, J. / CAIZERGUES, P.
7215 12 1045 WEIGHTED INCREMENT LINEAR SEARCH FOR SCATTER TABLES * LUCCIO, F.
7215 12 1048 A COMPARISON OF MULTIVARIATE NORMAL GENERATORS * BARR, D.R. / SLEZAK, N.L.
7215 12 1050 A NEW METHOD FOR THE SOLUTION OF THE CAUCHY PROBLEM FOR PARABOLIC EQUATIONS * MOORE, J. / ROBINSON, P.
7215 12 1053 ON THE CRITERIA TO BE USED IN DECOMPOSING SYSTEMS INTO MODULES * PARNAS, D.L.
7215 12 1059 LEVELS OF LANGUAGE FOR PORTABLE SOFTWARE * BROWN, P.J.
7215 12 1063 TRACE-DRIVEN MODELING AND ANALYSIS OF CPU SCHEDULING IN A MULTIPROGRAMMING SYSTEM * SHERMAN, S. / BASKETT, F. III / BROWNE, J.C.

- 7215 12 1023 ADAMS, H.C.
 7215 10 873 AHRENS, J.H.
 7215 7 521 ARBIB, M.A.
 7215 7 693 ALT, F.L.
 7215 5 363 ASHENHURST, R.L.
 7215 11 981 BAECKER, H.D.
 7215 7 628 BACHMAN, C.W.
 7215 12 1048 BARR, D.R.
 7215 12 1063 BASKETT, F. III
 7215 7 678 BAUER, F.L.
 7215 12 1033 BAYER, R.
 7215 8 742 BENJAMIN, A.J.
 7215 7 640 BENJAMIN, R.I.
 7215 5 308 BENSOUSSAN, A.
 7215 8 772 BERNSTEIN, H.J.
 7215 6 411 BLATNY, J.
 7215 3 135 BOBROW, D.G.
 7215 7 618 BOBROW, D.G.
 7215 7 695 BORODIN, A.
 7215 7 574 BRINCH HANSEN, P.
 7215 12 1059 BROWN, P.J.
 7215 12 1063 BROWNE, J.C.
 7215 3 135 BURCHFIELD, J.D.
 7215 12 1040 CAIZERGUES, P.
 7215 6 427 CHANDLER, W.J.
 7215 4 253 CHASE, S.M.
 7215 5 319 CHRISTMAN, R.D.
 7215 6 411 CLARK, S.R.
 7215 5 308 CLINGEN, C.T.
 7215 3 185 COFFMAN, E.G. JR.
 7215 4 211 CONWAY, R.W.
 7215 8 728 CROWE, D.
 7215 5 308 DALEY, R.C.
 7215 10 906 DATHE, G.
 7215 3 191 DENNING, P.J.
 7215 9 827 DEUTSCH, E.S.
 7215 10 873 DIETER, U.
 7215 10 859 DIJKSTRA, E.W.
 7215 1 16 DJORP, F.M.
 7215 1 11 DUDA, R.O.
 7215 5 351 DUNHAM, C.B.
 7215 1 21 DWYER, T.A.
 7215 12 1040 EARLEY, J.
 7215 2 76 EASTMAN, C.M.
 7215 8 748 ECKHOUSE, R.H. JR.
 7215 11 999 EISENBERG, M.A.
 7215 7 501 ERSKOV, A.P.
 7215 10 913 ERSKOV, A.P.
 7215 9 841 FELDMAN, J.
 7215 2 113 FLORES, I.
 7215 2 96 FLYNN, M.J.
 7215 7 611 FOSDICK, L.D.
 7215 7 557 FOSTER, C.
 7215 11 941 FOX, P.
 7215 7 566 FRASER, A.G.
 7215 10 910 FRAZER, W.D.
 7215 8 748 FRIEDER, G.
 7215 3 150 GAINES, R.S.
 7215 5 337 GENTLEMAN, W.M.
 7215 5 343 GENTLEMAN, W.M.
 7215 9 802 GHOSH, S.P.
 7215 6 427 GILBERT, P.
 7215 6 438 GIMPEL, J.F.
 7215 2 113 GORDON, R.
 7215 7 695 GOTTLIEB, C.C.
 7215 5 347 GREENSPAN, D.
 7215 9 838 GREGORY, J.
 7215 3 171 HABERMANN, A.N.
 7215 9 840 HABERMANN, A.N.
 7215 2 94 HALSTEAD, M.H.
 7215 10 883 HANSON, R.J.
 7215 1 11 HART, P.E.
 7215 5 352 HARTER, R.
 7215 8 735 HELBIG, R.E.
 7215 11 967 HENDERSON, P.
 7215 4 231 HERBST, N.M.
 7215 2 113 HERMAN, G.T.
 7215 4 257 HOROWITZ, E.
 7215 4 276 HU, T.C.
 7215 6 460 IGUCHI, K.
 7215 1 16 IRONS, E.T.
 7215 8 774 JONES, P.R.
 7215 6 470 KANDEL, A.
 7215 9 789 KAUTZ, W.H.
 7215 11 997 KENNEDY, S.
 7215 9 839 KHALIL, H.M.
 7215 7 586 KIMBLETON, S.R.
 7215 7 671 KNUTH, D.E.
 7215 6 472 KOFFMAN, E.B.
 7215 4 262 KUKI, H.
 DYNAMIC PARTITIONING FOR ARRAY LANGUAGES
 COMPUTER METHODS FOR SAMPLING FROM THE EXPONENTIAL AND NORMAL DISTRIBUTIONS
 TOWARD AN AUTOMATA THEORY OF BRAINS
 ARCHAEOLOGY OF COMPUTERS
 CURRICULUM RECOMMENDATIONS FOR GRADUATE PROFESSIONAL PROGRAMS IN INFORMATION SYSTEMS
 GARBAGE COLLECTION FOR VIRTUAL MEMORY COMPUTER SYSTEMS
 THE EVOLUTION OF STORAGE STRUCTURES
 A COMPARISON OF MULTIVARIATE NORMAL GENERATORS
 TRACE-DRIVEN MODELING AND ANALYSIS OF CPU SCHEDULING IN A MULTIPROGRAMMING SYSTEM
 THE "PLANKALKÜL" OF KONRAD ZUSE: A FORERUNNER OF TODAY'S PROGRAMMING LANGUAGES
 INDEX RANGES FOR MATRIX CALCULI
 AN EXTENSIBLE EDITOR FOR A SMALL MACHINE WITH DISK STORAGE
 A GENERATIONAL PERSPECTIVE OF INFORMATION SYSTEM DEVELOPMENT
 THE MULTICS VIRTUAL MEMORY: CONCEPTS AND DESIGN
 COMPILING FIXED-POINT MULTIPLICATIONS
 ON THE OPTIMIZATION OF PERFORMANCE OF TIME-SHARING SYSTEMS BY SIMULATION
 TENEX, A PAGED TIME SHARING SYSTEM FOR THE PDP-10
 REQUIREMENTS FOR ADVANCED PROGRAMMING SYSTEMS FOR LIST PROCESSING
 COMPUTERS AND EMPLOYMENT
 STRUCTURED MULTIPROGRAMMING
 LEVELS OF LANGUAGE FOR PORTABLE SOFTWARE
 TRACE-DRIVEN MODELING AND ANALYSIS OF CPU SCHEDULING IN A MULTIPROGRAMMING SYSTEM
 TENEX, A PAGED TIME SHARING SYSTEM FOR THE PDP-10
 A METHOD FOR INCREMENTALLY COMPILING LANGUAGES WITH NESTED STATEMENT STRUCTURE
 INTERFERENCE BETWEEN COMMUNICATING PARALLEL PROCESSES
 AN IMPLEMENTED GRAPH ALGORITHM FOR WINNING SHANNON SWITCHING GAMES
 MUX, A SIMPLE APPROACH TO ON-LINE COMPUTING
 ON THE OPTIMIZATION OF PERFORMANCE OF TIME-SHARING SYSTEMS BY SIMULATION
 THE MULTICS VIRTUAL MEMORY: CONCEPTS AND DESIGN
 A STUDY OF SHORTAGE PARTITIONING USING A MATHEMATICAL MODEL OF LOCALITY
 ON THE IMPLEMENTATION OF SECURITY MEASURES IN INFORMATION SYSTEMS
 GENERATING PARSERS FOR AFFIX GRAMMARS
 THE MULTICS VIRTUAL MEMORY: CONCEPTS AND DESIGN
 CONVERSION OF DECISION TABLES BY RULE MASK METHOD WITHOUT RULE MASK
 PROPERTIES OF THE WORKING-SET MODEL
 THINNING ALGORITHMS ON RECTANGULAR, HEXAGONAL, AND TRIANGULAR ARRAYS
 COMPUTER METHODS FOR SAMPLING FROM THE EXPONENTIAL AND NORMAL DISTRIBUTIONS
 1972 ACM TURING AWARD LECTURE: THE HUMBLE PROGRAMMER
 A CRT EDITING SYSTEM
 USE OF THE HOUGH TRANSFORMATION TO DETECT LINES AND CURVES IN PICTURES
 MINIMAX NONLINEAR APPROXIMATION BY APPROXIMATION ON SUBSETS
 TEACHER/STUDENT AUTHORED CAI USING THE NEWBASIC SYSTEM
 A METHOD FOR INCREMENTALLY COMPILING LANGUAGES WITH NESTED STATEMENT STRUCTURE
 PRELIMINARY REPORT ON A SYSTEM FOR GENERAL SPACE PLANNING
 AN ENVIRONMENT FOR RESEARCH IN MICROPROGRAMMING AND EMULATION
 FURTHER COMMENTS ON DIJKSTRA'S CONCURRENT PROGRAMMING CONTROL PROBLEM
 AESTHETICS AND THE HUMAN FACTOR IN PROGRAMMING
 CORRIGENDUM: AESTHETICS AND THE HUMAN FACTOR IN PROGRAMMING
 A CONTROLLER FOR A BRAILLE TERMINAL
 CORRIGENDUM: AVERAGE BINARY SEARCH LENGTH FOR DENSE ORDERED LISTS
 CORRIGENDUM: DYNAMIC MICROPROGRAMMING: PROCESSOR ORGANIZATION AND PROGRAMMING
 THE PRODUCTION OF BETTER MATHEMATICAL SOFTWARE
 A VIEW OF COMPUTER ARCHITECTURE
 A COMPARATIVE STUDY OF COMPUTER PROGRAMS FOR INTEGRATING DIFFERENTIAL EQUATIONS
 ON THE INTERFACE BETWEEN COMPUTERS AND DATA COMMUNICATIONS SYSTEMS
 SORTING BY NATURAL SELECTION
 AN ENVIRONMENT FOR RESEARCH IN MICROPROGRAMMING AND EMULATION
 AN OPERATING SYSTEM BASED ON THE CONCEPT OF A SUPERVISORY COMPUTER
 IMPLEMENTING CLENSHAW-CURTIS QUADRATURE, I. METHODOLOGY AND EXPERIENCE
 IMPLEMENTING CLENSHAW-CURTIS QUADRATURE, II. COMPUTING THE COSINE TRANSFORMATION
 FILE ORGANIZATION: THE CONSECUTIVE RETRIEVAL PROPERTY
 INTERFERENCE BETWEEN COMMUNICATING PARALLEL PROCESSES
 BLOCKS-A NEW DATATYPE FOR SNOBOL4
 CORRIGENDUM: RECONSTRUCTION OF PICTURES FROM THEIR PROJECTIONS
 COMPUTERS AND EMPLOYMENT
 FAST FINITE-DIFFERENCE SOLUTION OF BIHARMONIC PROBLEMS
 A COMPARISON OF FLOATING POINT SUMMATION METHODS
 SYNCHRONIZATION OF COMMUNICATING PROCESSES
 COMMENT ON DEADLOCK PREVENTION METHOD
 MAXIMUM COMPUTING POWER AND COST FACTORS IN THE CENTRALIZATION PROBLEM
 INTEGRAL EQUATIONS OF IMMUNOLOGY
 USE OF THE HOUGH TRANSFORMATION TO DETECT LINES AND CURVES IN PICTURES
 THE OPTIMALITY OF WINOGRAD'S FORMULA
 POLITICAL REDISTRICTING BY COMPUTER
 DERIVED SEMANTICS FOR SOME PROGRAMMING LANGUAGE CONSTRUCTS
 AN EXPERIMENTAL LABORATORY FOR PATTERN RECOGNITION AND SIGNAL PROCESSING
 CORRIGENDUM: RECONSTRUCTION OF PICTURES FROM THEIR PROJECTIONS
 COMPUTERS AND SOCIETY: A PROPOSED COURSE FOR COMPUTER SCIENTISTS
 A COMMENT ON THE DOUBLE-CHAINED TREE
 A STARTING METHOD FOR SOLVING NONLINEAR VOLTERRA INTEGRAL EQUATIONS OF THE SECOND KIND
 A CRT EDITING SYSTEM
 COMMENT ON AVERAGE BINARY SEARCH LENGTH
 COMPUTER SCIENCE-A VICIOUS CIRCLE
 CELLULAR ARRAYS FOR THE SOLUTION OF GRAPH PROBLEMS
 A NOTE ON OPTIMAL DOUBLY-CHAINED TREES
 THE EIGENPROBLEM OF BLOCK TRIDIAGONAL MATRICES
 THE ROLE OF COMPUTER SYSTEM MODELS IN PERFORMANCE EVALUATION
 ANCIENT BABYLONIAN ALGORITHMS
 INDIVIDUALIZING INSTRUCTION IN A GENERATIVE CAI TUTOR
 COMPLEX GAMMA FUNCTION WITH ERROR CONTROL

- 7215 9 809 LAMDAI, T.
 7215 11 956 LEDGARD, H.F.
 7215 1 3 LESK, A.M.
 7215 1 7 LEVIADLI, S.
 7215 9 789 LEVITT, K.N.
 7215 3 144 LISKOV, B.H.
 7215 12 1045 LUCCIO, F.
 7215 11 996 LUM, V.Y.
 7215 7 579 LYNCH, W.C.
 7215 2 113 MADPIS, G.
 7215 11 949 MALCOLM, M.A.
 7215 7 528 MANNA, Z.
 7215 6 448 MARTIN, D.F.
 7215 2 88 MARTIN, W.A.
 7215 4 245 MATSUSHITA, Y.
 7215 4 211 MAXWELL, W.L.
 7215 1 29 MCCALLA, G.I.
 7215 11 999 MCGUIRE, M.R.
 7215 4 268 MOLER, C.B.
 7215 12 1050 MOORE, J.
 7215 2 104 MOORER, J.A.
 7215 9 809 MOR, M.
 7215 4 211 MORGAN, H.L.
 7215 4 257 MORGAN, H.L.
 7215 10 867 MORRIS, J.B.
 7215 8 773 MORRIS, J.H. JR.
 7215 7 550 MOSES, J.
 7215 5 301 MULLIN, J.K.
 7215 3 135 MURPHY, D.L.
 7215 2 88 NESS, D.N.
 7215 8 761 ODEN, P.H.
 7215 2 94 OLDEHOEFF, A.E.
 7215 6 455 O'REAGAN, R.T.
 7215 8 735 ORR, P.K.
 7215 2 71 PAGER, D.
 7215 5 330 PARNAS, D.L.
 7215 9 840 PARNAS, D.L.
 7215 12 1053 PARNAS, D.L.
 7215 11 952 PATRICK, M.L.
 7215 12 1023 PHILLIPS, J.R.
 7215 3 177 PINKERTON, T.D.
 7215 6 462 POHL, I.
 7215 11 987 RAMBERG, J.S.
 7215 8 775 READ, R.C.
 7215 7 485 REVENS, L.
 7215 7 637 RICE, J.
 7215 9 813 RICHMAN, P.L.
 7215 12 1050 ROBINSON, P.
 7215 8 735 ROEDIGER, R.R.
 7215 7 591 ROSEN, S.
 7215 8 748 ROSIN, R.F.
 7215 6 411 ROURKE, T.A.
 7215 9 841 RUBINSTEIN, R.
 7215 3 185 RYAN, T.A. JR.
 7215 7 658 SALTON, G.
 7215 3 157 SALTZER, J.H.
 7215 1 45 SALZER, H.E.
 7215 7 601 SAMMET, J.E.
 7215 1 29 SAMPSON, J.R.
 7215 11 987 SCHMEISER, B.W.
 7215 12 1063 SHERMAN, S.
 7215 3 157 SCHROEDER, M.D.
 7215 5 347 SCHULTZ, D.
 7215 3 191 SCHWARTZ, S.C.
 7215 7 644 SEDELOW, S.Y.
 7215 7 542 SHANNO, D.F.
 7215 4 257 SHAW, A.C.
 7215 8 761 SHEDLER, G.S.
 7215 1 28 SHELL, D.L.
 7215 1 41 SHRAGER, R.I.
 7215 10 891 SIMMONS, R.
 7215 12 1048 SLEZAK, N.L.
 7215 10 891 SLOCUM, J.
 7215 11 1000 SMOLIAR, S.W.
 7215 6 421 SPACEK, T.R.
 7215 7 686 SPRAGUE, R.E.
 7215 7 652 STURMAN, G.M.
 7215 9 843 TAN, K.C.
 7215 3 177 TEOREY, T.J.
 7215 3 135 TOMLINSON, R.S.
 7215 7 537 TRAUB, J.
 7215 2 96 TUCKER, A.B.
 7215 8 772 VAN DER POEL, W.L.
 7215 11 974 VERHELST, M.
 7215 7 528 VUILLEMIN, J.
 7215 4 221 WALDEN, D.C.
 7215 4 275 WALDEN, D.C.
 7215 7 542 WEIL, R.L.
 7215 7 491 WEISS, E.A.
 7215 4 231 WILL, P.M.
 A NEW APPROACH TO AUTOMATIC SCANNING OF CONTOUR MAPS
 A MODEL FOR TYPE CHECKING-WITH AN APPLICATION TO ALGOL 60
 PICTORIAL PATTERN RECOGNITION AND THE PHASE PROBLEM OF X-RAY CRYSTALLOGRAPHY
 ON SHRINKING BINARY PICTURE PATTERNS
 CELLULAR ARRAYS FOR THE SOLUTION OF GRAPH PROBLEMS
 THE DESIGN OF THE VENUS OPERATING SYSTEM
 WEIGHTED INCREMENT LINEAR SEARCH FOR SCATTER TABLES
 ADDITIONAL RESULTS ON KEY-TO-ADDRESS TRANSFORM TECHNIQUES: A FUNDAMENTAL PERFORMANCE STUDY ON
 LARGE EXISTING FORMATTED FILES
 OPERATING SYSTEM PERFORMANCE
 CORRIGENDUM: AVERAGE BINARY SEARCH LENGTH FOR DENSE ORDERED LISTS
 ALGORITHMS TO REVEAL PROPERTIES OF FLOATING-POINT ARITHMETIC
 FIXPOINT APPROACH TO THE THEORY OF COMPUTATION
 A BOOLEAN MATRIX METHOD FOR THE COMPUTATION OF LINEAR PRECEDENCE FUNCTIONS
 OPTIMIZING BINARY TREES GROWN WITH A SORTING ALGORITHM
 HIDDEN LINES ELIMINATION FOR A ROTATING OBJECT
 ON THE IMPLEMENTATION OF SECURITY MEASURES IN INFORMATION SYSTEMS
 MUSE: A MODEL TO UNDERSTAND SIMPLE ENGLISH
 FURTHER COMMENTS ON DIJKSTRA'S CONCURRENT PROGRAMMING CONTROL PROBLEM
 MATRIX COMPUTATIONS WITH FORTRAN AND PAGING
 A NEW METHOD FOR THE SOLUTION OF THE CAUCHY PROBLEM FOR PARABOLIC EQUATIONS
 MUSIC AND COMPUTER COMPOSITION
 A NEW APPROACH TO AUTOMATIC SCANNING OF CONTOUR MAPS
 ON THE IMPLEMENTATION OF SECURITY MEASURES IN INFORMATION SYSTEMS
 COMPUTERS AND SOCIETY: A PROPOSED COURSE FOR COMPUTER SCIENTISTS
 DEMAND PAGING THROUGH UTILIZATION OF WORKING SETS ON THE MANIAC II
 A BONUS FROM VAN WIJNGAARDEN'S DEVICE
 TOWARD A GENERAL THEORY OF SPECIAL FUNCTIONS
 AN IMPROVED INDEX SEQUENTIAL ACCESS METHOD USING HASHED OVERFLOW
 TENEX, A PAGED TIME SHARING SYSTEM FOR THE PDP-10
 OPTIMIZING BINARY TREES GROWN WITH A SORTING ALGORITHM
 A MODEL OF MEMORY CONTENTION IN A PAGING MACHINE
 MAXIMUM COMPUTING POWER AND COST FACTORS IN THE CENTRALIZATION PROBLEM
 COMPUTER-ASSIGNED CODES FROM VERBAL RESPONSES
 POLITICAL REDISTRICTING BY COMPUTER
 A PROPOSAL FOR A COMPUTER-BASED INTERACTIVE SCIENTIFIC COMMUNITY
 A TECHNIQUE FOR SOFTWARE MODULE SPECIFICATION WITH EXAMPLES
 COMMENT ON DEADLOCK PREVENTION METHOD
 ON THE CRITERIA TO BE USED IN DECOMPOSING SYSTEMS INTO MODULES
 A HIGHLY PARALLEL ALGORITHM FOR APPROXIMATING ALL ZEROS OF A POLYNOMIAL WITH ONLY REAL ZEROS
 DYNAMIC PARTITIONING FOR ARRAY LANGUAGES
 A COMPARATIVE ANALYSIS OF DISK SCHEDULING POLICIES
 A SORTING PROBLEM AND ITS COMPLEXITY
 AN APPROXIMATE METHOD FOR GENERATING SYMMETRIC RANDOM VARIABLES
 A NOTE ON THE GENERATION OF ROSARY PERMUTATIONS
 THE FIRST TWENTY-FIVE YEARS
 ON THE PRESENT AND FUTURE OF SCIENTIFIC COMPUTATION
 AUTOMATIC ERROR ANALYSIS FOR DETERMINING PRECISION
 A NEW METHOD FOR THE SOLUTION OF THE CAUCHY PROBLEM FOR PARABOLIC EQUATIONS
 POLITICAL REDISTRICTING BY COMPUTER
 PROGRAMMING SYSTEMS AND LANGUAGES
 AN ENVIRONMENT FOR RESEARCH IN MICROPROGRAMMING AND EMULATION
 ON THE OPTIMIZATION OF PERFORMANCE OF TIME-SHARING SYSTEMS BY SIMULATION
 A CONTROLLER FOR A BRAILLE TERMINAL
 A STUDY OF STORAGE PARTITIONING USING A MATHEMATICAL MODEL OF LOCALITY
 DYNAMIC DOCUMENT PROCESSING
 A-HARDWARE ARCHITECTURE FOR IMPLEMENTING PROTECTION RINGS
 ORDERING $\pm f(\pm f(\dots \pm f(x) \dots))$ WHEN $f(x)$ IS POSITIVE MONOTONIC
 PROGRAMMING LANGUAGES: HISTORY AND FUTURE
 MUSE: A MODEL TO UNDERSTAND SIMPLE ENGLISH
 AN APPROXIMATE METHOD FOR GENERATING SYMMETRIC RANDOM VARIABLES
 TRACE-DRIVEN MODELING AND ANALYSIS OF CPU SCHEDULING IN A MULTIPROGRAMMING SYSTEM
 A HARDWARE ARCHITECTURE FOR IMPLEMENTING PROTECTION RINGS
 FAST FINITE-DIFFERENCE SOLUTION OF BIHARMONIC PROBLEMS
 PROPERTIES OF THE WORKING-SET MODEL
 LANGUAGE ANALYSIS IN THE HUMANITIES
 MANAGEMENT SCIENCE: A VIEW FROM NONLINEAR PROGRAMMING
 COMPUTERS AND SOCIETY: A PROPOSED COURSE FOR COMPUTER SCIENTISTS
 A MODEL OF MEMORY CONTENTION IN A PAGING MACHINE
 CORRIGENDUM: OPTIMIZING THE POLYPHASE SORT
 QUADRATIC PROGRAMMING FOR NONLINEAR REGRESSION
 GENERATING ENGLISH DISCOURSE FROM SEMANTIC NETWORKS
 A COMPARISON OF MULTIVARIATE NORMAL GENERATORS
 GENERATING ENGLISH DISCOURSE FROM SEMANTIC NETWORKS
 COMMENTS ON MOORER'S: MUSIC AND COMPUTER COMPOSITION
 A PROPOSAL TO ESTABLISH A PSEUDO VIRTUAL MEMORY VIA WRITABLE OVERLAYS
 A WESTERN VIEW OF COMPUTER HISTORY
 COMPUTERS AND URBAN SOCIETY
 ON FOSTER'S INFORMATION STORAGE AND RETRIEVAL USING AVL TREES
 A COMPARATIVE ANALYSIS OF DISK SCHEDULING POLICIES
 TENEX, A PAGED TIME SHARING SYSTEM FOR THE PDP-10
 NUMERICAL MATHEMATICS AND COMPUTER SCIENCE
 CORRIGENDUM: DYNAMIC MICROPROGRAMMING: PROCESSOR ORGANIZATION AND PROGRAMMING
 COMMENT ON THE COMPOSITION OF SEMANTICS IN ALGOL 68
 THE CONVERSION OF LIMITED-ENTRY DECISION TABLES TO OPTIMAL AND NEAR-OPTIMAL FLOWCHARTS: TWO
 NEW ALGORITHMS
 FIXPOINT APPROACH TO THE THEORY OF COMPUTATION
 A SYSTEM FOR INTERPROCESS COMMUNICATION IN A RESOURCE SHARING COMPUTER NETWORK
 A NOTE ON CHENEY'S NONRECURSIVE LIST-COMPACTING ALGORITHM
 MANAGEMENT SCIENCE: A VIEW FROM NONLINEAR PROGRAMMING
 PUBLICATIONS IN COMPUTING: AN INFORMAL REVIEW
 AN EXPERIMENTAL LABORATORY FOR PATTERN RECOGNITION AND SIGNAL PROCESSING

- 7215 12 1033 WITZGALL, C. INDEX RANGES FOR MATRIX CALCULI
 7215 10 910 WONG, C.K. SORTING BY NATURAL SELECTION
 7215 7 678 WÜSSNER, H. THE "PLANKALKÜL" OF KONRAD ZUSE: A FORERUNNER OF TODAY'S PROGRAMMING LANGUAGES
 7215 11 996 YUEN, P.S.T. ADDITIONAL RESULTS ON KEY-TO-ADDRESS TRANSFORM TECHNIQUES: A FUNDAMENTAL PERFORMANCE STUDY ON LARGE EXISTING FORMATTED FILES
 7215 7 648 ZINN, K. COMPUTERS IN THE INSTRUCTIONAL PROCESS: DIRECTIONS FOR RESEARCH AND DEVELOPMENT

DEPARTMENT INDEX

ALGORITHMS (Numbered algorithms indexed separately)

COMPUTATIONAL LINGUISTICS

- 7215 1 29 MUSE: A MODEL TO UNDERSTAND SIMPLE ENGLISH * MCCALLA, G.I. / SAMPSON, J.R.
 7215 2 104 MUSIC AND COMPUTER COMPOSITION * MOORER, J.A.
 7215 11 1000 COMMENTS ON MOORER'S: MUSIC AND COMPUTER COMPOSITION (SHORT COMMUNICATION) * SMOLIAR, S.W.

COMPUTER SYSTEMS

- 7215 1 16 A CRT EDITING SYSTEM * IRONS, E.T. / DJORUP, F.M.
 7215 2 94 MAXIMUM COMPUTING POWER AND COST FACTORS IN THE CENTRALIZATION PROBLEM * OLDEHOEF, A.E. / HALSTEAD, M.H.
 7215 2 96 CORRIGENDUM: DYNAMIC MICROPROGRAMMING: PROCESSOR ORGANIZATION AND PROGRAMMING * TUCKER, A.B. / FLYNN, M.J.
 7215 4 221 A SYSTEM FOR INTERPROCESS COMMUNICATION IN A RESOURCE SHARING COMPUTER NETWORK * WALDEN, D.C.
 7215 4 231 AN EXPERIMENTAL LABORATORY FOR PATTERN RECOGNITION AND SIGNAL PROCESSING * HERBST, N.M. / WILL, P.M.
 7215 6 411 ON THE OPTIMIZATION OF PERFORMANCE OF TIME-SHARING SYSTEMS BY SIMULATION * BLATNY, J. / CLARK, S.R. / ROURKE, T.A.
 7215 8 748 AN ENVIRONMENT FOR RESEARCH IN MICROPROGRAMMING AND EMULATION * ROSIN, R.F. / FRIEDER, G. / ECKHOUSE, R.H. JR.
 7215 9 789 CELLULAR ARRAYS FOR THE SOLUTION OF GRAPH PROBLEMS * LEVITT, K.N. / KAUTZ, W.H.
 7215 10 867 DEMAND PAGING THROUGH UTILIZATION OF WORKING SETS ON THE MANIAC II * MORRIS, J.B.
 7215 11 999 FURTHER COMMENTS ON DIJKSTRA'S CONCURRENT PROGRAMMING CONTROL PROBLEM (SHORT COMMUNICATION) * EISENBERG, N.A. / MCGUIRE, M.R.

EDUCATION

- 7215 1 21 TEACHER/STUDENT AUTHORED CAI USING THE NEWBASIC SYSTEM * DWYER, T.A.
 7215 4 257 COMPUTERS AND SOCIETY: A PROPOSED COURSE FOR COMPUTER SCIENTISTS * HOROWITZ, E. / MORGAN, H.L. / SHAW, A.C.
 7215 5 363 CURRICULUM RECOMMENDATIONS FOR GRADUATE PROFESSIONAL PROGRAMS IN INFORMATION SYSTEMS * ASHENHURST, R.L.
 7215 6 470 COMPUTER SCIENCE-A VICIOUS CIRCLE (SHORT COMMUNICATION) * KANDEL, A.
 7215 6 472 INDIVIDUALIZING INSTRUCTION IN A GENERATIVE CAI TUTOR (SHORT COMMUNICATION) * KOFFMAN, E.B.

GRAPHICS AND IMAGE PROCESSING

- 7215 1 7 ON SHRINKING BINARY PICTURE PATTERNS * LEVIALDI, S.
 7215 1 11 USE OF THE HOUGH TRANSFORMATION TO DETECT LINES AND CURVES IN PICTURES * DUDA, R.O. / HART, P.E.
 7215 2 113 CORRIGENDUM: RECONSTRUCTION OF PICTURES FROM THEIR PROJECTIONS * GORDON, R. / HERMAN, G.T.
 7215 9 809 A NEW APPROACH TO AUTOMATIC SCANNING OF CONTOUR MAPS * MOR, M. / LANDAN, T.

INFORMATION RETRIEVAL

- 7215 2 113 CORRIGENDUM: AVERAGE BINARY SEARCH LENGTH FOR DENSE ORDERED LISTS * FLORES, I. / MADPIS, G.
 7215 4 276 A COMMENT ON THE DOUBLE-CHAINED TREE (SHORT COMMUNICATION) * HU, T.C.
 7215 8 774 COMMENT ON AVERAGE BINARY SEARCH LENGTH (SHORT COMMUNICATION) * JONES, P.R.
 7215 9 802 FILE ORGANIZATION: THE CONSECUTIVE RETRIEVAL PROPERTY * GHOSH, S.P.
 7215 9 843 ON FOSTER'S INFORMATION STORAGE AND RETRIEVAL USING AVL TREES (SHORT COMMUNICATION) * TAN, K.C.
 7215 11 996 ADDITIONAL RESULTS ON KEY-TO-ADDRESS TRANSFORM TECHNIQUES: A FUNDAMENTAL PERFORMANCE STUDY ON LARGE EXISTING FORMATTED FILES (SHORT COMMUNICATION) * LUM, V.Y. / YUEN, P.S.T.
 7215 11 997 A NOTE ON OPTIMAL DOUBLY-CHAINED TREES (SHORT COMMUNICATION) * KENNEDY, S.
 7215 12 1045 WEIGHTED INCREMENT LINEAR SEARCH FOR SCATTER TABLES * LUCCIO, F.

MANAGEMENT/DATA BASE SYSTEMS

- 7215 2 88 OPTIMIZING BINARY TREES GROWN WITH A SORTING ALGORITHM * MARTIN, W.A. / NESS, D.N.
 7215 4 211 ON THE IMPLEMENTATION OF SECURITY MEASURES IN INFORMATION SYSTEMS * CONWAY, R.W. / MAXWELL, W.L. / MORGAN, H.L.
 7215 5 301 AN IMPROVED INDEX SEQUENTIAL ACCESS METHOD USING HASHED OVERFLOW * MULLIN, J.K.

MANAGEMENT SCIENCE/OPERATIONS RESEARCH

- 7215 10 873 COMPUTER METHODS FOR SAMPLING FROM THE EXPONENTIAL AND NORMAL DISTRIBUTIONS * AHRENS, J.H. / DIETER, U.
 7215 11 987 AN APPROXIMATE METHOD FOR GENERATING SYMMETRIC RANDOM VARIABLES * RAMBERG, J.S. / SCHMEISER, B.W.

NUMERICAL MATHEMATICS

- 7215 1 41 QUADRATIC PROGRAMMING FOR NONLINEAR REGRESSION * SHRAGER, R.I.
 7215 1 45 ORDERING $\pm f(\pm f(\dots \pm f(x) \dots))$ WHEN $f(x)$ IS POSITIVE MONOTONIC (SHORT COMMUNICATION) * SALZER, H.E.
 7215 4 262 COMPLEX GAMMA FUNCTION WITH ERROR CONTROL * KUKI, H.
 7215 4 268 MATRIX COMPUTATIONS WITH FORTRAN AND PAGING * MOLER, C.B.
 7215 5 337 IMPLEMENTING CLENSHAW-CURTIS QUADRATURE, I. METHODOLOGY AND EXPERIENCE * GENTLEMAN, W.M.
 7215 5 343 IMPLEMENTING CLENSHAW-CURTIS QUADRATURE, II. COMPUTING THE COSINE TRANSFORMATION * GENTLEMAN, W.M.
 7215 5 347 FAST FINITE-DIFFERENCE SOLUTION OF BIHARMONIC PROBLEMS * GREENSPAN, D. / SCHULTZ, D.
 7215 5 351 MINIMAX NONLINEAR APPROXIMATION BY APPROXIMATION ON SUBSETS (SHORT COMMUNICATION) * DUNHAM, C.B.
 7215 5 352 THE OPTIMALITY OF WINOGRAD'S FORMULA (SHORT COMMUNICATION) * HARTER, R.
 7215 6 460 A STARTING METHOD FOR SOLVING NONLINEAR VOLTERRA INTEGRAL EQUATIONS OF THE SECOND KIND * IGUCHI, K.
 7215 9 813 AUTOMATIC ERROR ANALYSIS FOR DETERMINING PRECISION * RICHMAN, P.L.
 7215 9 838 A COMPARISON OF FLOATING POINT SUMMATION METHODS (SHORT COMMUNICATION) * GREGORY, J.
 7215 9 839 THE EIGENPROBLEM OF BLOCK TRIAGONAL MATRICES (SHORT COMMUNICATION) * KHALIL, H.M.
 7215 11 941 A COMPARATIVE STUDY OF COMPUTER PROGRAMS FOR INTEGRATING DIFFERENTIAL EQUATIONS * FOX, P.
 7215 11 949 ALGORITHMS TO REVEAL PROPERTIES OF FLOATING-POINT ARITHMETIC * MALCOLM, M.A.
 7215 11 952 A HIGHLY PARALLEL ALGORITHM FOR APPROXIMATING ALL ZEROS OF A POLYNOMIAL WITH ONLY REAL ZEROS * PATRICK, M.L.
 7215 12 1048 A COMPARISON OF MULTIVARIATE NORMAL GENERATORS * BARR, D.R. / SLEZAK, N.L.
 7215 12 1050 A NEW METHOD FOR THE SOLUTION OF THE CAUCHY PROBLEM FOR PARABOLIC EQUATIONS * MOORE, J. / ROBINSON, P.

OPERATING SYSTEMS

- 7215 5 308 THE MULTICS VIRTUAL MEMORY: CONCEPTS AND DESIGN * BENSOUSSAN, A. / CLINGEN, C.T. / DALEY, R.C.
 7215 5 319 MUX, A SIMPLE APPROACH TO ON-LINE COMPUTING * CHRISTMAN, R.D.
 7215 6 421 A PROPOSAL TO ESTABLISH A PSEUDO VIRTUAL MEMORY VIA WRITABLE OVERLAYS * SPACEK, T.R.
 7215 6 427 INTERFERENCE BETWEEN COMMUNICATING PARALLEL PROCESSES * GILBERT, P. / CHANDLER, W.J.
 7215 8 761 A MODEL OF MEMORY CONTENTION IN A PAGING MACHINE * ODEN, P.H. / SHEDLER, G.S.
 7215 9 840 COMMENT ON DEADLOCK PREVENTION METHOD (SHORT COMMUNICATION) * PARNAS, D.L. / HABERMANN, A.N.
 7215 11 981 GARBAGE COLLECTION FOR VIRTUAL MEMORY COMPUTER SYSTEMS * BAECKER, H.D.
 7215 12 1063 TRACE-DRIVEN MODELING AND ANALYSIS OF CPU SCHEDULING IN A MULTIPROGRAMMING SYSTEM * SHERMAN, S. / BASKETT, F. III / BROWNE, J.C.

PROGRAMMING LANGUAGES

- 7215 6 438 BLOCKS-A NEW DATATYPE FOR SNOBOL4 * GIMPEL, J.F.
- 7215 6 448 A BOOLEAN MATRIX METHOD FOR THE COMPUTATION OF LINEAR PRECEDENCE FUNCTIONS * MARTIN, D.F.
- 7215 8 772 COMMENT ON THE COMPOSITION OF SEMANTICS IN ALGOL 68 (SHORT COMMUNICATION) * VAN DER POEL, W.L.
- 7215 8 773 A BONUS FROM VAN WIJNGAARDEN'S DEVICE (SHORT COMMUNICATION) * MORRIS, J.H. JR.
- 7215 11 956 A MODEL FOR TYPE CHECKING-WITH AN APPLICATION TO ALGOL 60 * LEDGARD, H.F.
- 7215 11 967 DERIVED SEMANTICS FOR SOME PROGRAMMING LANGUAGE CONSTRUCTS * HENDERSON, P.
- 7215 12 1023 DYNAMIC PARTITIONING FOR ARRAY LANGUAGES * PHILLIPS, J.R. / ADAMS, H.C.
- 7215 12 1033 INDEX RANGES FOR MATRIX CALCULI * BAYER, R. / WITZGALL, C.
- 7215 12 1040 A METHOD FOR INCREMENTALLY COMPILING LANGUAGES WITH NESTED STATEMENT STRUCTURE * EARLEY, J. / CAIZERGUES, P.

PROGRAMMING TECHNIQUES

- 7215 1 28 CORRIGENDUM: OPTIMIZING THE POLYPHASE SORT * SHELL, D.L.
- 7215 4 275 A NOTE ON CHENEY'S NONRECURSIVE LIST-COMPACTING ALGORITHM * WALDEN, D.C.
- 7215 5 330 A TECHNIQUE FOR SOFTWARE MODULE SPECIFICATION WITH EXAMPLES * PARNAS, D.L.
- 7215 6 462 A SORTING PROBLEM AND ITS COMPLEXITY * POHL, I.
- 7215 8 772 COMPILING FIXED-POINT MULTIPLICATIONS (SHORT COMMUNICATION) * BERNSTEIN, H.J.
- 7215 10 906 CONVERSION OF DECISION TABLES BY RULE MASK METHOD WITHOUT RULE MASK * DATHE, G.
- 7215 10 910 SORTING BY NATURAL SELECTION * FRAZER, W.D. / WONG, C.K.
- 7215 11 974 THE CONVERSION OF LIMITED-ENTRY DECISION TABLES TO OPTIMAL AND NEAR-OPTIMAL FLOWCHARTS: TWO NEW ALGORITHMS * VERHELST, M.
- 7215 12 1053 ON THE CRITERIA TO BE USED IN DECOMPOSING SYSTEMS INTO MODULES * PARNAS, D.L.
- 7215 12 1059 LEVELS OF LANGUAGE FOR PORTABLE SOFTWARE * BROWN, P.J.

SCIENTIFIC APPLICATIONS

- 7215 1 3 PICTORIAL PATTERN RECOGNITION AND THE PHASE PROBLEM OF X-RAY CRYSTALLOGRAPHY * LESK, A.M.
- 7215 2 71 A PROPOSAL FOR A COMPUTER-BASED INTERACTIVE SCIENTIFIC COMMUNITY * PAGER, D.
- 7215 2 76 PRELIMINARY REPORT ON A SYSTEM FOR GENERAL SPACE PLANNING * EASTMAN, C.M.
- 7215 4 245 HIDDEN LINES ELIMINATION FOR A ROTATING OBJECT * MATSUSHITA, Y.
- 7215 4 253 AN IMPLEMENTED GRAPH ALGORITHM FOR WINNING SHANNON SWITCHING GAMES * CHASE, S.M.
- 7215 6 455 COMPUTER-ASSIGNED CODES FROM VERBAL RESPONSES * O'REAGAN, R.T.
- 7215 8 728 GENERATING PARSERS FOR AFFIX GRAMMARS * CROWE, D.
- 7215 8 735 POLITICAL REDISTRICTING BY COMPUTER * HELBIG, R.E. / ORR, P.K. / ROEDIGER, R.R.
- 7215 8 742 AN EXTENSIBLE EDITOR FOR A SMALL MACHINE WITH DISK STORAGE * BENJAMIN, A.J.
- 7215 8 775 A NOTE ON THE GENERATION OF ROSARY PERMUTATIONS (SHORT COMMUNICATION) * READ, R.C.
- 7215 9 827 THINKING ALGORITHMS ON RECTANGULAR, HEXAGONAL, AND TRIANGULAR ARRAYS * DEUTSCH, E.S.
- 7215 9 841 A CONTROLLER FOR A BRAILLE TERMINAL (SHORT COMMUNICATION) * RUBINSTEIN, R. / FELDMAN, J.
- 7215 10 859 1972 ACM TURING AWARD LECTURE: THE HUMBLE PROGRAMMER * DIJKSTRA, E.W.
- 7215 10 883 INTEGRAL EQUATIONS OF IMMUNOLOGY * HANSON, R.J.
- 7215 10 891 GENERATING ENGLISH DISCOURSE FROM SEMANTIC NETWORKS * SIMMONS, R. / SLOCUM, J.

PAPERS FROM THE THIRD ACM SYMPOSIUM ON OPERATING SYSTEMS PRINCIPLES

- 7215 3 135 TENEX, A PAGED TIME SHARING SYSTEM FOR THE PDP-10 * BOBROW, D.G. / BURCHFIELD, J.D. / MURPHY, D.L. / TOMLINSON, R.S.
- 7215 3 144 THE DESIGN OF THE VENUS OPERATING SYSTEM * LISKOV, B.H.
- 7215 3 150 AN OPERATING SYSTEM BASED ON THE CONCEPT OF A SUPERVISORY COMPUTER * GAINES, R.S.
- 7215 3 157 A HARDWARE ARCHITECTURE FOR IMPLEMENTING PROTECTION RINGS * SCHROEDER, M.D. / SALTZER, J.H.
- 7215 3 171 SYNCHRONIZATION OF COMMUNICATING PROCESSES * HABERMANN, A.N.
- 7215 3 177 A COMPARATIVE ANALYSIS OF DISK SCHEDULING POLICIES * TEORY, T.J. / PINKERTON, T.B.
- 7215 3 185 A STUDY OF STORAGE PARTITIONING USING A MATHEMATICAL MODEL OF LOCALITY * COFFMAN, E.G. JR. / RYAN, T.A. JR.
- 7215 3 191 PROPERTIES OF THE WORKING-SET MODEL * DENNING, P.J. / SCHWARTZ, S.C.

PAPERS FROM THE 25TH ANNIVERSARY ISSUE

- 7215 7 485 THE FIRST TWENTY-FIVE YEARS * REVENS, L.
- 7215 7 491 PUBLICATIONS IN COMPUTING: AN INFORMAL REVIEW * WEISS, E.A.
- 7215 7 501 AESTHETICS AND THE HUMAN FACTOR IN PROGRAMMING * ERSHOV, A.P.

A. FUNDAMENTALS

- 7215 7 521 TOWARD AN AUTOMATA THEORY OF BRAINS * ARBIB, M.A.
- 7215 7 528 FIXPOINT APPROACH TO THE THEORY OF COMPUTATION * MANNA, Z. / VUILLEMIN, J.
- 7215 7 537 NUMERICAL MATHEMATICS AND COMPUTER SCIENCE * TRAUB, J.
- 7215 7 542 MANAGEMENT SCIENCE: A VIEW FROM NONLINEAR PROGRAMMING * SHANNO, D.F. / WEIL, R.L.
- 7215 7 550 TOWARD A GENERAL THEORY OF SPECIAL FUNCTIONS * MOSES, J.

B. COMPUTERWARE

- 7215 7 557 A VIEW OF COMPUTER ARCHITECTURE * FOSTER, C.
- 7215 7 566 ON THE INTERFACE BETWEEN COMPUTERS AND DATA COMMUNICATIONS SYSTEMS * FRASER, A.G.
- 7215 7 574 STRUCTURED MULTIPROGRAMMING * BRINCH HANSEN, P.
- 7215 7 579 OPERATING SYSTEM PERFORMANCE * LYNCH, W.C.
- 7215 7 586 THE ROLE OF COMPUTER SYSTEM MODELS IN PERFORMANCE EVALUATION * KIMBLETON, S.R.
- 7215 7 591 PROGRAMMING SYSTEMS AND LANGUAGES * ROSEN, S.
- 7215 7 601 PROGRAMMING LANGUAGES: HISTORY AND FUTURE * SAMMET, J.
- 7215 7 611 THE PRODUCTION OF BETTER MATHEMATICAL SOFTWARE * FOSDICK, L.D.
- 7215 7 618 REQUIREMENTS FOR ADVANCED PROGRAMMING SYSTEMS FOR LIST PROCESSING * BOBROW, D.G.
- 7215 7 628 THE EVOLUTION OF STORAGE STRUCTURES * BACHMAN, C.W.

C. APPLICATIONS

- 7215 7 637 ON THE PRESENT AND FUTURE OF SCIENTIFIC COMPUTATION * RICE, J.
- 7215 7 640 A GENERATIONAL PERSPECTIVE OF INFORMATION SYSTEM DEVELOPMENT * BENJAMIN, R.I.
- 7215 7 644 LANGUAGE ANALYSIS IN THE HUMANITIES * SEDELOW, S.Y.
- 7215 7 648 COMPUTERS IN THE INSTRUCTIONAL PROCESS: DIRECTIONS FOR RESEARCH AND DEVELOPMENT * ZINN, K.
- 7215 7 652 COMPUTERS AND URBAN SOCIETY * STURMAN, G.M.
- 7215 7 658 DYNAMIC DOCUMENT PROCESSING * SALTON, G.

D. PERSPECTIVES

- 7215 7 671 ANCIENT BABYLONIAN ALGORITHMS * KNUTH, D.E.
- 7215 7 678 THE "PLANKALKÜL" OF KONRAD ZUSE: A FORERUNNER OF TODAY'S PROGRAMMING LANGUAGES * BAUER, F.L. / WÖSSNER, H.
- 7215 7 686 A WESTERN VIEW OF COMPUTER HISTORY * SPRAGUE, R.E.
- 7215 7 693 ARCHAEOLOGY OF COMPUTERS * ALT, F.L.
- 7215 7 695 COMPUTERS AND EMPLOYMENT * BORODIN, A. / GOTTLIEB, C.C.

